

DP-302738

IN THE SPECIFICATION

Please substitute the following paragraph for the paragraph beginning on page 5, line 30 and ending on page 6, line 14.

Referring generally to Figures 4-9, the contoured endcone assembly 20 comprises a conical shaped sidewall extending outward to a shoulder element. A mat protection element extends from and is contiguous to the shoulder element. The conical shaped sidewall can be configured to form an inlet 22 at a first end, while the mat protection ~~element can element~~ can be configured to form an outlet 24 at an opposing second end. The shoulder element can be, for example, a first shoulder 26 (See Figures 4, 6, 8) or a second shoulder 30 (See Figures 5, 7, 9), or a third shoulder 32 (See Figures 16, 17). The shoulders 26, 30, 32 are formed concentrically about their respective sidewalls, above the outlet 24, and can be attached to an exhaust system component, such as a catalytic converter using, for example, a joint configuration such as a lap joint, butt joint, tee joint, snap connector, and the like, as well as combinations comprising at least one of the foregoing joints, which can be sealed mechanically or by a sealing agent such as a weld, crimp, lockseam, bonding agent, and the like, or by a combination of techniques comprising at least one of the foregoing sealing agents. The shoulders 26, 30 and 32 can be utilized to position the endcone assembly relative to the catalytic converter's shell.

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Please substitute the following paragraph for the paragraph beginning on page 6, line 15 and ending on page 7, line 11.

In one embodiment of the contoured endcone assembly 20, the mat protection element can be a sidewall ~~sidewall~~ that is concentrically formed about the outlet 24. The sidewall of the mat protection element can have a geometry such as annular (e.g., circular, or non-circular, such as oval, oblong, and the like), multi-sided (e.g., triangular, rectangular, pentagonal, hexagonal, heptagonal, octagonal, and the like), or a delta shape as is known in the art. In another embodiment of the contoured endcone assembly 20, the sidewall of the mat protection element can have a straight edge, such as the straight-edged annular sidewall of Figures 4 and 5, or can be disposed inwardly such as a concentric inwardly disposed sidewall, or a concentric inwardly disposed conical shaped sidewall as illustrated in Figures 16 and 17. In yet another embodiment, the sidewall can possess a combination of the above-mentioned features such that the sidewall can include a multi-sided geometry, such as rectangular, having straight-edged, or inwardly disposed sidewalls. In additional embodiments, the mat protection element can optionally include at least two ribs 34 (Figures 6-7) or dimples 36 (Figures 8-9), which protrude outwardly from the mat protection element, that impart additional positioning, retention, and alignment properties to the contoured endcone assembly when inserted into the catalytic converter assembly. The length of the mat protection element can be increased or decreased dependent upon the degree of the thermal protection sought for the edge of the mat support material. The mat protection element's length can be increased, for example, when the exhaust gas stream temperature is high, such as over about 850°C. In that situation, the mat protection element can extend to contact the mat support material, or penetrate the mat support material, and be disposed between the mat support material and the catalyst substrate. However, the degree of thermal protection, or temperature control, sought ultimately depends upon the particular operating conditions, and therefore may vary substantially with each particular application.

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Please substitute the following paragraph for the paragraph beginning on page 7, line 29 and ending on page 8, line 14.

Referring now to Figures 8-9, yet another contoured endcone assembly has a mat protection element that includes a single concentric dimple, or preferably at least two dimples 36, with at least three dimples 36 most preferred, that protrude outwardly from the element's sidewall. The diameter "D'D" of the dimples 36 is preferably greater than the diameter "d'd" of the non-expanded portion of the mat protection element. The diameter "D'D" can also be slightly greater than the interior diameter of the catalytic converter shell, such that the dimples can contact the shell to ensure the endcone assembly is positioned, aligned and retained within the shell. Two dimples can be utilized for retaining, positioning, and aligning the endcone assembly in the shell without using a weld, or other costly or time consuming techniques. However, three or more dimples can preferably be employed for retaining, positioning, and aligning the endcone assembly, and its annular ring, within the shell, and relative to the catalyst substrate. The dimple 36 can be formed by bending or stretch forming the stock material, or using a sizing tool. Each dimple 36 can be a solid extension, such as, e.g., dimple 36', or a hollow extension and preferably have a depth proportional to the size and shape/geometry of the mat protection element.

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Please substitute the following paragraph for the paragraph on page 15, lines 4-17.

The contoured endcone assembly is attached to the shell using the shoulder element such that the catalytic converter and contoured endcone assembly are in fluid communication. The contoured endcone can be further attached at its opposing end, using, for example, a mechanical operation, welding operation, or sealing operation, and the like, to an exhaust system component such as a connecting pipe, a mounting flange, a flexible coupling assembly, an exhaust pipe, or other exhaust system component, and the like, to place the endcone assembly in fluid communication with an exhaust system. The opposing end of the shell 44, opposite the endcone assembly, can be attached, using, for example, a mechanical operation, a welding operation, or a sealing operation, and the like, to an end plate 24, conventional endcone (not shown), or other type of cover, and further attached to an exhaust system component to place the catalytic converter in fluid communication with the exhaust system.